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PERVAN, MICHAEL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,178	NAM ET AL.	
	Examiner	Art Unit	
	Michael Pervan	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 8-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 8-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 4, 2010 have been fully considered but they are not persuasive.

The Applicant (on pages 12-13 of argument) argues that Yu does not disclose displaying a high resolution partial picture of only a portion of a high resolution picture. Examiner respectfully disagrees.

The claims do not specify a high resolution image in relation to another image. Therefore, even though the image of Yu is disclosed as a low resolution image relative to the original image resolution, it can be considered a high resolution when compared to an image of 5x5. As a result, Yu still reads on the claims and the rejection stands.

The Applicant (on pages 13-14 of argument) argues that Yu and Nagata do not disclose the recited scrolling method. Examiner respectfully disagrees.

Although, Yu discloses having to use a hyperlink to reach the high resolution partial image and Nagata discloses scrolling an image, changing the partial image to the next corresponding image based on where the user scrolls is old and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to modify Yu and Nagata with the known method of changing an image based on which side of the displays has been reached, yielding a predictable result in a scrollable image that allows a user to view other areas of the image while maintaining a zoomed in view.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 8-10, 22-24, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ *or "Yu" hereinafter*) in view of Nagata et al. (US Pat# 6701017 B1 *"Nagata" hereinafter*) and Sano et al. (US Pub# 20020196970 A1/ *or "Sano" hereinafter*).

For **claim 1,** Yu teaches a mobile communication terminal configured to display a high resolution picture, comprising a wireless communication unit configured to receive high resolution picture data through a mobile communication network (Yu, column 3, lines 9-20). Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b). Yu teaches a storing unit configured to generate indexes of each of the divided unit blocks of high resolution picture data (Yu, column 8, lines 18-32, and figure 3a-3b), the storing unit further configured to generate a file converted into a picture file format including the high resolution picture data and indexes of each unit block (Yu, column 8, lines 18-32, and figure 3a-3b), and further configured to store the converted file in the converted file database (Yu,

column 8, lines 18-32, and figure 3a-3b). Here Yu teaches the image being divided into a number of sub areas and displayed on the screen, each with an associated index. In order for the display to properly display the sub areas it is obvious that the picture data and indexes are generated and stored because this is required for the device to work. Yu teaches a picture data processing unit configured to receive the picture data in picture file format (Yu, column 7, lines 1-25), to extract a minimum number of unit blocks using index information of the picture file formatted data (Yu, column 7, lines 1-25, figure 5 and 7) and output a high resolution partial picture of only a portion of the high resolution picture based upon the minimum number of unit blocks data (Yu, column 7, lines 1-25, figure 5 and 7). Yu teaches a display unit configured to display the partial picture (Yu, figure 2). Yu teaches a selecting unit for selecting the unit blocks to be outputted to the display and extracting the selected block by using the index information (Yu, column 7, lines 1-56); wherein a size of each unit block of picture data is less than a size of a display size of the mobile communications terminal (Yu, column 8, lines 18-32).

Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit that divides the image into blocks (Sano, page 3, paragraph [0032]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of the

format converting unit could reduce the file size of the image allowing less memory to be used to store the image.

Yu and Sano do not teach a scroll action operates to change a position of the partial picture within the high resolution picture; however, in the same field of endeavor, Nagata teaches a scroll action operates to change a position of the partial picture within the high resolution picture (Nagata, column 13 line 65 – column 14 line 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Nagata because this would allow for the user to view enlarged portions of the picture.

For **claim 8,** Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). Sano teaches that this technique is beneficially in memory reduction and therefore it is obvious that the compressed blocks are stored in memory.

For **claim 9,** Sano teaches decompressing each block individually (Sano, page 3, paragraph [0032]).

For **claim 10,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently

dividing the image into a number of sub areas, therefore, picture information is being used that contains the size of the display screen and unit blocks.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Sano teaches using JPEG images (Sano, page 2, paragraph [0027]). It is well known in the art that a JPEG image may include header information including the size of the whole picture. Sano also teaches that each block has its on header (Sano, page 2, paragraph [0024]). It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software.

For **claim 22,** Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b).

Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit (which may be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

For **claim 23,** Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b). Yu teaches this new picture file displayed (Yu, figure 5b).

Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit (which may be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]).

For **claim 24,** Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). It is obvious that this step is performed after the picture data is divided into blocks because this is necessary to compress each block individually.

For **claim 30,** Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). Sano teaches that this technique is beneficially in memory reduction and therefore it is obvious that the compressed blocks are stored in memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images

and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

For **claim 33,** Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). It would have been obvious to do this after dividing the picture data since it is necessary to be divided to compress each block individually. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

For **claim 36**, Yu teaches the mobile communication terminal of claim 1, wherein the picture file formatted data comprises picture header information including a size of the whole picture and a size of each unit block of picture data, wherein the size of each unit block of picture data is less than a size of the partial picture, and wherein the minimum number of unit blocks associated with each partial picture is greater than one (Yu, column 8, lines 18-32).

4. Claims 2-5, 11-13, 15, 16, 17, 18, 21, 25-26, 28, 29, 31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ *or "Yu" hereinafter*) in view of Nagata et al. (US Pat# 6701017 B1 published 08/12/1999/ *or*

"Nagata" hereinafter), Sano et al. (US Pub# 20020196970 A1/ *or "Sano" hereinafter*) and Lim (US Pat# 7233807 B2).

For **claim 2**, Yu teaches a memory configured to store the picture data and the picture in picture file format including a plurality of unit blocks and indexes (Yu, figure 3b), the memory further including: Yu teaches a selecting unit for selecting the unit blocks to be outputted to the display and extracting the selected block by using the index information (Yu, column 7, lines 1-56).

Yu does not teach a frame buffer; however, in the same field of endeavor, Lim teaches a frame buffer for buffering the picture that will be outputted to the display unit (Lim, column 13). It would have been obvious that the frame buffer could be either the decoding frame buffer or the screen frame buffer since the buffer itself does not change. Lim teaches buffering the picture that will be outputted to the display (Lim, column 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of the buffer could reduce the amount of time waiting for an image to load.

For **claim 3**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because

both deal with display images on mobile devices and decompressing the image can restore the image to a better quality.

For **claim 4,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being used that contains the size of the display screen and unit blocks.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. Lim also teaches using screen data and scaling the image based on specification of the display unit (Lim, column 11, lines 12-34). Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the use of JPEG images can take up less memory.

For **claim 5,** Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and generating a thumbnail can help the user select the image without have to wait for full size images to load.

For **claim 11,** Yu and Sano do not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format. It would have been an obvious matter of design choice to have the storing unit produce the supplementary information used for the thumbnail since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and generating a thumbnail image could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

For **claim 12,** Yu and Sano do not teach an external input port; however, in the same field of endeavor, Lim teaches an external input port (Lim, column 12, lines 25-29). Lim teaches using an external camera; therefore there must be an external input port. It would have been obvious to convert, index, and store the image from the external camera because the mobile terminal is still receiving an image, only from a different device. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

Claim 13 is rejected upon the same grounds as claim 12.

For **claim 15,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas; therefore, picture information is being extracted and used.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may

include header information including the size of the whole picture. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the use of JPEG images can take up less memory.

For **claim 16,** Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and generating a thumbnail can help the user select the image without have to wait for full size images to load.

For **claim 17**, Yu teaches a memory configured to store the picture data and the picture in picture file format including a plurality of unit blocks and indexes (Yu, figure 3b), the memory further including: Yu teaches a selecting unit for selecting the unit blocks to be outputted to the display and extracting the selected block by using the index information (Yu, column 7, lines 1-56).

Yu does not teach a frame buffer; however, in the same field of endeavor, Lim teaches a frame buffer for buffering the picture that will be outputted to the

display unit (Lim, column 13). It would have been obvious that the frame buffer could be either the decoding frame buffer or the screen frame buffer since the buffer itself does not change. Lim teaches buffering the picture that will be outputted to the display (Lim, column 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of the buffer could reduce the amount of time waiting for an image to load.

For **claim 18**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to perform the decompressing after extracting the data because the processor would need the data so it can decompress it and before buffering the picture data because buffering can be used to reduce any delays when displaying the image, therefore decompressing after buffering would negate some of the benefits of buffering.

For **claim 25,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to generate the picture header after dividing the picture data into a plurality of blocks because the size of the picture and blocks would need to be known before and after the picture is divided. It would have been obvious to do this before generating the converted file because the picture header is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

For **claim 26,** Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to generate the thumbnail after dividing the picture data into a plurality of blocks because the thumbnail could be generated before or

after the picture is divided. It would have been obvious to do this before generating the converted file because the supplementary information is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

For **claim 28,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas; therefore, picture information is being extracted and used.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on

mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 29,** Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 31**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 34,** Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being.

Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to generate the picture header after dividing the picture data into a plurality of blocks because the size of the picture and blocks would need to be known before and after the picture is divided. It would have been obvious to do this before generating the converted file because the picture header is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 35,** Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary

information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to generate the thumbnail after dividing the picture data into a plurality of blocks because the thumbnail could be generated before or after the picture is divided. It would have been obvious to do this before generating the converted file because the supplementary information is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

5. Claims 14, 27, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ *or "Yu" hereinafter*) in view of Nagata et al. (US Pat# 6701017 B1 *"Nagata" hereinafter*).

For **claim 14,** Yu teaches receiving high resolution picture data through a mobile communications network (Yu, column 3, lines 9-20); formatting the received picture data into picture file formatted data including a plurality of unit blocks of high resolution picture data and index information (Yu, column 7, lines 1-25, figure 5 and 7); extracting a minimum number of unit blocks of high resolution picture data from the picture file formatted data (Yu, column 7, lines 1-25, figure 5 and 7); generating a high resolution partial picture that includes only a portion of the high resolution picture using the extracted minimum number of

unit blocks and the index information, wherein the partial picture corresponds to a display area of the mobile communications terminal (Yu, column 7, lines 1-25, figure 5 and 7); and outputting the partial picture to the display unit (Yu, column 7, lines 1-25, figure 5 and 7); and extracting corresponding unit blocks of picture data from the picture file formatted data in a movement direction by using the index information, and outputting a position-moved picture based on a scroll action generated during the display of the picture (Yu, column 7, lines 1-25, figure 5 and 7); wherein the size of each unit block of high resolution picture data is less than a size of the high resolution partial picture, and wherein the minimum number of unit blocks associated with each high resolution partial picture is greater than one (Yu, column 8, lines 18-32).

Yu does not teach that the preprocessing is done in the mobile device; however, this would have been obvious to one of ordinary skill in the art at the time of the invention because doing so would save cost for the company because they would no longer have to pay for the servers to do this preprocessing.

Yu does not teach a scroll action operates to change a position of the partial picture within the high resolution picture; however, in the same field of endeavor, Nagata teaches a scroll action operates to change a position of the partial picture within the high resolution picture (Nagata, column 13 line 65 – column 14 line 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Nagata because this would allow for the user to view enlarged portions of the picture.

For **claim 27,** Yu teaches a system configured to display picture data in a mobile communication system, the mobile communication system comprising: a mobile communication terminal including a display driver (Yu, column 3, lines 9-20); a base transceiver system configured to wirelessly communicate with the mobile communication terminal (Yu, column 3, lines 53-67, figure 1); a base station controller configured to control the base transceiver system(Yu, column 3, lines 53-67, figure 1); a packet data service node connected to the base station controller and configured to provide data services to the mobile communication terminal (Yu, column 3, lines 53-67, figure 1); and a picture providing server configured to provide picture data to the mobile communication terminal through the packet data service node (Yu, figure 1) wherein the format converting server comprises: a received file database configured to store picture data from at least one of the mobile communication terminal and picture providing server, and a converted file database configured to store a format-converted file of the high resolution picture data (Yu, column 7, lines 1-23, and figure 3a). Here, Yu teaches a server that receives an image (in high resolution 640 x 480) in an original format and then processes it and then sends it to a mobile device. It is obvious that converted file is stored when it is sent to the mobile device; therefore it is stored in a converted file database. Yu teaches a picture data receiving unit configured to receive the picture data from the picture providing server (Yu, column 7, lines 1-25, figure 1); a picture dividing unit configured to

divide the picture of the picture data into a plurality of unit blocks (Yu, column 8, lines 18-32, and figure 3a-3b); a storing unit configured to generate indexes of each of the divided unit blocks (Yu, column 8, lines 18-32, and figure 3a-3b), the storing unit further configured to generate a file converted into a picture file format including the picture data and indexes of each unit block (Yu, column 8, lines 18-32, and figure 3a-3b), and further configured to store the converted file in the converted file database (Yu, column 8, lines 18-32, and figure 3a-3b). Here Yu teaches the image being divided into a number of sub areas and displayed on the screen, each with an associated index. In order for the display to properly display the sub areas it is obvious that the picture data and indexes are generated and stored because this is required for the device to work. Yu also teaches a converted file transmitting unit configured to transmit the converted file to the mobile communication terminal or picture providing server (Yu, figure 3a-3b); wherein a size of each unit block of picture data is less than a size of a display size of the mobile communications terminal and the display size of the mobile communications terminal is configured to display only a portion of the high resolution picture data (Yu, column 8, lines 18-32).

Yu does not teach that the preprocessing is done in the mobile device; however, this would have been obvious to one of ordinary skill in the art at the time of the invention because doing so would save cost for the company because they would no longer have to pay for the servers to do this preprocessing.

Yu does not teach a scroll action operates to change a position of the partial picture within the high resolution picture; however, in the same field of endeavor, Nagata teaches a scroll action operates to change a position of the partial picture within the high resolution picture (Nagata, column 13 line 65 – column 14 line 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Nagata because this would allow for the user to view enlarged portions of the picture.

For **claim 32,** Yu teaches having a display device configured to display, at any one time, only a portion of the high resolution picture data (Yu, column 3, lines 9-20), the method comprising: Yu also teaches dividing, at a format converting server, a high resolution picture data received from the mobile communication terminal or from a picture providing server: into a plurality of unit blocks (Yu, column 8, lines 18-32, and figure 3a-3b); generating indexes that provide access to each divided unit block of high resolution picture data (Yu, column 8, lines 18-32); and generating a file converted into picture file format (Yu, column 7, lines 1-23, column 8, lines 18-32): including the index information and each of the unit blocks (Yu, column 7, lines 1-23, column 8, lines 18-32); transmitting the converted file including all the unit blocks and index information to the mobile communications terminal over a mobile communications system (Yu, column 3, lines 53-67, figure 1); wherein a size of each unit block of picture

data is less than a size of a display size of the mobile communications terminal (Yu, column 8, lines 18-32).

Yu does not teach that the preprocessing is done in the mobile device; however, this would have been obvious to one of ordinary skill in the art at the time of the invention because doing so would save cost for the company because they would no longer have to pay for the servers to do this preprocessing.

Yu does not teach a scroll action operates to change a position of the partial picture within the high resolution picture; however, in the same field of endeavor, Nagata teaches a scroll action operates to change a position of the partial picture within the high resolution picture (Nagata, column 13 line 65 – column 14 line 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Nagata because this would allow for the user to view enlarged portions of the picture.

6. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ *or "Yu" hereinafter*) in view of Nagata et al. (US Pat# 6701017 B1 *"Nagata" hereinafter*) and Minami (US Pub# 20030117407 A1).

For **claim 19,** Yu does not teach calculating the movement position in accordance with generation of scroll; however, in the same field of endeavor, Minami teaches calculating movement position in accordance with generation of scroll action and re-selecting image blocks for displaying and deciding whether picture data exists in the buffer and displaying the picture (Minami, page 4,

paragraph [0048] – paragraph [0050]). It would have been obvious to one of ordinary skill in the art to modify Yu with Minami because both deal with image displays and the addition of calculating the movement position would improve the usability by decreasing the latency to view parts of the image.

For **claim 20,** Yu does not teach calculating the movement position of scrolling; however, in the same field of endeavor, Minami teaches extracting block picture data using index information when the predicted partial image is not in the buffer and storing the image blocks (Minami, page 4, paragraph [0050]).

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ *or "Yu" hereinafter*) in view of Nagata et al. (US Pat# 6701017 B1 *"Nagata" hereinafter*), Minami (US Pub# 20030117407 A1) and Lim (US Pat# 7233807 B2).

For **claim 21**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to perform the decompressing after extracting the data because the processor would need the data so it can decompress it and before correcting the decoding frame buffer because buffering can be used to reduce any delays when displaying the image, therefore decompressing after correcting the decoding the frame buffer would negate some of the benefits of buffering. It would have been obvious to one of

ordinary skill in the art at the invention was made to modify Yu and Minami with Lim because all deal with the same subject matter and decompressing the image can restore the image to a better quality.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Pervan/
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629

Dec. 17, 2010